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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/637,881	08/08/2003	Kenji Takahashi	1232-5108	2506

27123 7590 11/29/2007

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EXAMINER	
BAKER, CHARLOTTE M	

ART UNIT	PAPER NUMBER
2625	

NOTIFICATION DATE	DELIVERY MODE
11/29/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/637,881	TAKAHASHI, KENJI	
	Examiner	Art Unit	
	Charlotte M. Baker	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-43 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-43 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 08/08/2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *See Continuation Sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :07/01/2005; 12/09/2005; 03/06/2006; 04/19/2006; 04/26/2006; 04/27/2006; 08/11/2006; 10/26/2006.

DETAILED ACTION

Claim Objections

1. Claim 33 is objected to because of the following informalities: replace "convertes" with ---converts--. Appropriate correction is required.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 38-41 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The control program claimed is merely a set of instructions per se. Since the control program is merely a set of instructions not embodied on a computer readable medium to realize the computer program functionality, the claimed subject matter is non-statutory.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 9, 13-15, 17-19, 21, 38-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Marsh et al. (5,065,149).

Regarding claim 1: Marsh et al. disclose input device (Fig. 1, apparatus 11) which inputs an image sensed by image sensing device (Fig. 1, scanner 12); acquisition device (Fig. 1, DIMA 15)

which acquires at least one pixel value pair based on a source pixel value obtained from an image and a destination pixel value obtained from an image (col. 3, ln. 27 through col. 4, ln. 37); determination device (Fig. 1, LUT module 17) which determines an image processing parameter for converting one pixel value of the pixel value pair (ordered pair) into the other pixel value of said pixel value pair, on the basis of the acquired color pixel value pair (col. 4, ln. 17-37); registration device (Fig. 1, serializer module 19) which registers the image processing parameter determined by said determination device (Fig. 1, LUT module 17); and conversion device (Fig. 5 and col. 7, ln. 11-27) which converts pixel values of an input image input by said input device (Fig. 1, apparatus 11) on the basis of the image processing parameter device registered by said registration device (Fig. 1, serializer module 19), and outputs a converted image as an output image (col. 7, ln. 11-27).

Regarding claim 9: Marsh et al. satisfy all the elements of claim 1. Marsh et al. further disclose wherein said acquisition device (Fig. 1, DIMA 15) acquires a designated value pair consisting of first and second pixel values on the basis of first and second designated positions designated on one or two images col. 3, ln. 27 through col. 4, ln. 37), and determines the pixel value pair on the basis of the designated value pair col. 3, ln. 27 through col. 4, ln. 37).

Regarding claim 13: Marsh et al. satisfy all the elements of claim 1. Marsh et al. further disclose selection device (col. 7, ln. 11 through col. 8, ln. 40) which selects one of a plurality of processing modes (Table I) using different image processing parameters, and wherein said registration device (Fig. 1, serializer module 19) registers the image processing parameter determined by said determination device (Fig. 1, LUT module 17) as one of the plurality of processing modes (Table I), and when said selection device selects one of the processing modes

(Table I), said conversion device (Fig. 5 and col. 7, ln. 11-27) executes a conversion process using the image processing parameter registered by said registration device (Fig. 1, serializer module 19).

Regarding claim 14: Marsh et al. satisfy all the elements of claim 1. Marsh et al. further disclose further comprising holding device (LUT) which stores the image processing parameter determined by said determination device (Fig. 1, LUT module 17) in a first storage device medium (LUT), and wherein said conversion device (Fig. 5 and col. 7, ln. 11-27) stores the output image in a second storage medium (Fig. 3, timing generator 13).

Regarding claim 15: Marsh et al. satisfy all the elements of claim 1. Marsh et al. further disclose display device (Fig. 1, display monitor 21) which displays the image (col. 3, ln. 23-26), and wherein said registration device (Fig. 1, serializer module 19) registers a plurality of different image processing parameters in correspondence with a processing mode (Table I), and the plurality of different image processing parameters (col. 7, ln. 11 through col. 8, ln. 40) are displayed on said display device (Fig. 1, display monitor 21) (col. 7, ln. 50 through col. 9, ln. 29).

Regarding claim 17: Marsh et al. satisfy all the elements of claim 1. Marsh et al. further disclose wherein said determination device (Fig. 1, LUT module 17) applies inverse conversion of said conversion device (Fig. 5 and col. 7, ln. 11-27) to the pixel value before conversion of the pixel value pair (col. 4, ln. 17-37) using an image processing parameter which is set in advance (LUT), and said determination device (Fig. 1, LUT module 17) changes the image processing parameter to reduce a difference between a color pixel value obtained by processing the pixel

value obtained by the inverse conversion by said conversion device (Fig. 5 and col. 7, ln. 11-27), and the pixel value after conversion of the pixel value pair (col. 4, ln. 17-37) (col. 7, ln. 11-27) (col. 8, ln. 21-40).

Regarding claim 18: Marsh et al. satisfy all the elements of claim 1. Marsh et al. further disclose multi-dimensional lookup table conversion device (Fig. 1, LUT module 17) which converts an image using a multi-dimensional lookup table to obtain an output image (Fig. 5 and col. 7, ln. 11-27), and said determination device (Fig. 1, LUT module 17) changes the multi-dimensional lookup table on the basis of the pixel value pair (Table I) (col. 4, ln. 17-37) (col. 7, ln. 28 through col. 8, ln. 40).

Regarding claim 19: Marsh et al. satisfy all the elements of claim 18. Marsh et al. further disclose wherein the multi-dimensional lookup table (Fig. 1, LUT module 17) is a three-dimensional lookup table including R, G, and B as elements (Table I, binary bits output to CRT) (col. 7, ln. 28 through col. 8, ln. 40).

Regarding claim 21: The structural elements of apparatus claim 1 perform all of the steps of method claim 21. Thus, claim 21 is rejected for the same reasons discussed in the rejection of claim 1.

Regarding claim 38: Arguments analogous to those stated in the rejection of claim 21 are applicable. A computer readable medium storing a control program is inherently taught as evidenced by Marsh et al. (look-up table 17) and various memories stored therein.

Regarding claim 39: Arguments analogous to those stated in the rejection of claim 21 are applicable. A computer readable medium storing a control program is inherently taught as evidenced by Marsh et al. (look-up table 17) and various memories stored therein.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 2 and 5-6, 10, 22-24, 26-27, 29-30, 33-37 and 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marsh et al. in view of Yeomans (4,893,181).

Regarding claim 2: Marsh et al. satisfy all the elements of claim 1. Marsh et al. disclose wherein said acquisition device (Fig. 1, DIMA 15) acquires the pixel value pair on the basis of a color signal values of corresponding pixels (col. 4, ln. 17-37).

Marsh et al. fail to specifically address in a first image and a second image obtained by retouching the first image.

Yeomans discloses in a first image and a second image obtained by retouching the first image (col. 3, ln. 26-53).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include a first image and a second image obtained by retouching the first image in order to interactively modify an image.

Regarding claim 5: Marsh et al. and wherein said acquisition device (Fig. 1, DIMA 15) acquires at least one pixel value pair corresponding to the region pair (col. 4, ln. 17-37).

Marsh et al. fail to specifically address designation device which allows a user to designate a pair of regions on an image; designated by said designation device.

Yeomans discloses designation device which allows a user to designate a pair of regions on an image (col. 3, ln. 26 through col. 4, ln. 17); designated by said designation device (col. 3, ln. 26 through col. 4, ln. 17).

Regarding claim 6: Marsh et al. in view of Yeomans satisfy all the elements of claim 2. Marsh et al. further disclose wherein for each of a plurality of grid points set on a color space, said acquisition device (Fig. 1, DIMA 15) extracts pixels having pixel values (col. 4, ln. 17-37); said acquisition device (Fig. 1, DIMA 15) determines a pixel value (col. 4, ln. 17-37); and said acquisition device (Fig. 1, DIMA 15) sets a pixel value (col. 4, ln. 17-37); and the determined color pixel value after change as the pixel value pair (col. 4, ln. 17-37).

Marsh et al. fail to specifically address near a grid point of interest from the first image, and extracts pixels in the second image corresponding to the extracted pixels; from the first and second images; after change of the grid point of interest on the basis of the signal pixel values of the pixels extracted; of the grid point of interest.

Yeomans discloses near a grid point of interest from the first image (col. 3, ln. 26-39), and extracts pixels in the second image corresponding to the extracted pixels (col. 3, ln. 26 through col. 4, ln. 9); from the first and second images (col. 3, ln. 26 through col. 4, ln. 9); after change of the grid point of interest on the basis of the signal pixel values of the pixels extracted

(col. 3, ln. 26 through col. 4, ln. 9); of the grid point of interest (col. 3, ln. 26 through col. 4, ln. 9) (Fig. 3).

Regarding claim 10: Marsh et al. satisfy all the elements of claim 9. Marsh et al. further disclose wherein for each of a plurality of grid points set on a color space, said acquisition device (Fig. 1, DIMA 15) extracts designated value pairs (col. 4, ln. 17-37), the first color signal values, from designated value pairs acquired by said acquiring unit (Fig. 1, DIMA 15), said acquisition device (Fig. 1, DIMA 15) determines a color signal value (col. 3, ln. 27 through col. 4, ln. 37); on the basis of changes of the first and second color pixel values in the extracted designated value pairs (col. 3, ln. 27 through col. 4, ln. 37), and said acquisition device (Fig. 1, DIMA 15) sets the pixel value (col. 3, ln. 27 through col. 4, ln. 37), and the determined signal pixel value after change as the signal pixel value pair (col. 3, ln. 27 through col. 4, ln. 37).

Marsh et al. fail to specifically address of which are located near a grid point of interest; after change of the grid point of interest; of the grid point of interest.

Yeomans discloses of which are located near a grid point of interest (col. 3, ln. 26 through col. 4, ln. 9) (Fig. 3); after change of the grid point of interest (col. 3, ln. 26 through col. 4, ln. 9) (Fig. 3); of the grid point of interest (col. 3, ln. 26 through col. 4, ln. 9) (Fig. 3).

Regarding claim 22: Marsh et al. disclose pixel values of which are expressed on an N-dimensional color space (col. 7, ln. 28 through col. 8, ln. 40); generation device (Fig. 1, LUT module 17) which generates an N-dimensional color conversion table (Table I) on the basis of differences between pixel values of corresponding pixels (col. 7, ln. 28 through col. 8, ln. 40); and adjustment device (Fig. 1, serializer 19) which adjusts generation of table values of the color

conversion table (LUT) by said generation device (Fig. 1, LUT module 17) so that a change amount of a pixel value defined by the color conversion table (LUT) generated by said generation device (Fig. 1, LUT module 17) does not exceed a predetermined value (col. 7, ln. 28 through col. 8, ln. 40).

Marsh et al. fail to specifically address storage device which stores first and second images; in the first and second images.

Yeomans discloses storage device which stores first and second images (Fig. 1, image store 2); in the first and second images (col. 2, ln. 63 through col. 3, ln. 39).

Regarding claim 23: Marsh et al. in view of Yeomans satisfy all the elements of claim 22. Marsh et al. further disclose detection device (Fig. 1, DIMA 15) which detects, from the first image, pixels having pixel values (col. 3, ln. 27 through col. 4, ln. 37); of the N-dimensional color conversion table (LUT); calculation device (Fig. 1, LUT module 17) which calculates an average value of differences between pixel values of corresponding pixels (col. 4, ln. 17-37); in association with the pixels detected by said detection device (Fig. 1, DIMA 15) (col. 4, ln. 17-37); and determination device (Fig. 1, LUT module 17) which determines a value; on the basis of the average value calculated by said calculation device (Fig. 1, LUT module 17) (col. 4, ln. 17-37).

Marsh et al. fail to specifically address within a predetermined distance range from a grid point value of a grid point selected from respective grid points; in the first and second images; of the selected grid point.

Yeomans discloses within a predetermined distance range from a grid point value of a grid point selected from respective grid points (col. 3, ln. 26-39); in the first and second images (col. 3, ln. 26 through col. 4, ln. 9); of the selected grid point (col. 3, ln. 26-39).

Regarding claim 24: Marsh et al. in view of Yeomans satisfy all the elements of claim 22. Marsh et al. further disclose wherein when a distance between the pixel values of the corresponding pixels on the color space exceeds a threshold value (col. 3, ln. 27 through col. 4, ln. 37), said adjustment device (Fig. 1, serializer 19) adjusts the difference between the pixel values of the corresponding pixels on the basis of the distance and the threshold value (col. 3, ln. 27 through col. 4, ln. 37) (col. 7, ln. 28 through col. 8, ln. 40).

Regarding claim 26: Marsh et al. in view of Yeomans satisfy all the elements of claim 24. Marsh et al. further disclose wherein said adjustment device (Fig. 1, serializer 19) determines, as the distance, a maximum value Diff of differences between pixel values for respective components of corresponding pixels (col. 3, ln. 27 through col. 4, ln. 37) (col. 7, ln. 28 through col. 8, ln. 40); and when the distance is larger than a predetermined threshold value T, said adjustment device multiplies the differences for respective components by a value obtained based on the threshold value T and the distance Diff (col. 7, ln. 28 through col. 9, ln. 5).

Marsh et al. fail to specifically address of the first and second images.

Yeomans discloses of the first and second images (col. 3, ln. 26 through col. 4, ln. 9).

Regarding claim 27: Marsh et al. in view of Yeomans satisfy all the elements of claim 22. Marsh et al. further disclose wherein when a distance between pixel values before and after

conversion by the color conversion table (LUT) generated by said generation device (Fig. 1, LUT module 17) exceeds a threshold value, said adjustment device (Fig. 1, serializer 19) adjusts a corresponding table value in the color conversion table (LUT) (col. 3, ln. 27 through col. 4, ln. 37) (col. 7, ln. 28 through col. 8, ln. 40).

Regarding claim 29: Marsh et al. in view of Yeomans satisfy all the elements of claim 27. Arguments analogous to those stated in the rejection of claim 26 are applicable.

Regarding claim 30: Marsh et al. in view of Yeomans satisfy all the elements of claim 22. wherein when a difference between grid point data (col. 4, ln. 17-37) of the color conversion table (LUT) generated by said generation device (Fig. 1, LUT module 17) and a reference table is not less than a predetermined value, said adjustment device (Fig. 1, serializer 19) adjusts the grid point data of the color conversion table (LUT) (col. 3, ln. 27 through col. 4, ln. 37) (col. 7, ln. 28 through col. 8, ln. 40).

Regarding claim 33: Marsh et al. in view of Yeomans satisfy all the elements of claim 22. Marsh et al. further disclose conversion device (Fig. 5 and col. 7, ln. 11-27) which converts data of respective grid points of the color conversion table (LUT) generated by said generation device (Fig. 1, LUT module 17) into data on an M-dimensional space(col. 3, ln. 27-61) (col. 7, ln. 28 through col. 8, ln. 40).

Regarding claim 34: The structural elements of apparatus claim 22 perform all of the steps of method claim 34. Thus, claim 34 is rejected for the same reasons discussed in the rejection of claim 22.

Regarding claim 35: Marsh et al. in view of Yeomans satisfy all the elements of claim 22. Marsh et al. further disclose input device (Fig. 1, apparatus 11) which inputs image data (col. 3, ln. 9-26); conversion device (Fig. 5 and col. 7, ln. 11-27) which converts the image data input by said input device (Fig. 1, apparatus 11) using a color conversion table (LUT) generated by a conversion table generation apparatus; and output device (Fig. 1, CRT display monitor 21) which outputs image data converted by said conversion device (Fig. 5 and col. 7, ln. 11-27).

Regarding claim 36 Marsh et al. in view of Yeomans satisfy all the elements of claim 35. Marsh et al. further disclose wherein for each pixel value of the image data (col. 4, ln. 17-37), said conversion device (Fig. 5 and col. 7, ln. 11-27); near the pixel value from the conversion table (LUT), said conversion device (Fig. 5 and col. 7, ln. 11-27) calculates a distance between the pixel value (col. 4, ln. 17-37), and said conversion device (Fig. 5 and col. 7, ln. 11-27)obtains a pixel value after conversion of the pixel value (col. 4, ln. 17-37); and the calculated distance (col. 4, ln. 17-37) (col. 7, ln. 11-27).

Marsh et al. fail to specifically address extracts a grid point; and the extracted grid point; on the basis of grid point values of the extracted grid point and grid points near the extracted grid point.

Yeomans discloses extracts a grid point; and the extracted grid point (col. 3, ln. 26 through col. 4, ln. 9) (Fig. 3); on the basis of grid point values of the extracted grid point and grid points near the extracted grid point (col. 3, ln. 26 through col. 4, ln. 9) (Fig. 3).

Regarding claim 37: Marsh et al. in view of Yeomans satisfy all the elements of claim 34. The structural elements of apparatus claim 35 perform all of the steps of method claim 37. Thus, claim 37 is rejected for the same reasons discussed in the rejection of claim 35.

Regarding claim 40: Arguments analogous to those stated in the rejection of claim 34 are applicable. A computer readable medium storing a control program is inherently taught as evidenced by Marsh et al. (look-up table 17) and various memories stored therein.

Regarding claim 41: Arguments analogous to those stated in the rejection of claim 34 are applicable. A computer readable medium storing a control program is inherently taught as evidenced by Marsh et al. (look-up table 17) and various memories stored therein.

Regarding claim 42: Arguments analogous to those stated in the rejection of claim 34 are applicable.

Regarding claim 43: Arguments analogous to those stated in the rejection of claim 35 are applicable.

8. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marsh et al. in view of Cook (5,271,096).

Regarding claim 3: Marsh et al. satisfy all the elements of claim 1. Marsh et al. further disclose wherein said acquisition device (Fig. 1, DIMA 15) acquires the value pair based from one image (col. 3, ln. 27 through col. 4, ln. 37).

Marsh et al. fail to specifically address recorded on a detachable recording medium.

Cook discloses recorded on a detachable recording medium (disk, col. 4, ln. 52-68).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include recorded on a detachable recording medium in order to store a pixel pattern. as taught by Cook (col. 4, ln. 52-54).

Regarding claim 4: Marsh et al. satisfy all the elements of claim 1. Marsh et al. further disclose wherein said acquisition device (Fig. 1, DIMA 15) acquires the pixel value pair from based on a pair of pixel values of corresponding pixels (col. 3, ln. 27 through col. 4, ln. 37).

Marsh et al. fail to specifically address in a first image recorded on a detachable recording medium, and a second image which is recorded on the detachable recording medium and is different from the first image.

Cook discloses in a first image recorded on a detachable recording medium (disk, col. 4, ln. 52-68), and a second image which is recorded on the detachable recording medium (disk, col. 4, ln. 52-68) and is different from the first image (col. 4, ln. 46 through col. 5, ln. 17).

9. Claims 7 and 11, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marsh et al. in view of Yeomans and further in view of Hiroaki (6,661,425).

Regarding claim 7: Marsh et al. in view of Yeomans satisfy all the elements of claim 2.

Marsh et al. in view of Yeomans fail to specifically address wherein the first and second images have the same image size, and are stored in a storage medium in the same image format.

Hiroaki discloses wherein the first and second images have the same image size, and are stored in a storage medium in the same image format (col. 11, ln. 26-34).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include wherein the first and second images have the same image size, and are stored in a storage medium in the same image format in order to efficiently compare the images.

Regarding claim 11: Marsh et al. satisfy all the elements of claim 9.

Marsh et al. fail to specifically address wherein the two images have the same image size, and are stored in a storage medium in the same image format.

Hiroaki discloses wherein the two images have the same image size, and are stored in a storage medium in the same image format (col. 11, ln. 26-34).

Regarding claim 16: Marsh et al. satisfy all the elements of claim 1. Marsh et al. further disclose wherein the conversion process includes: inputting an input image input by said input device (Fig. 1, apparatus 11), processing the sensed input image (col. 4, ln. 17-37); so that all pixels of respective color components have values (col. 4, ln. 17-37); amplifying a color difference of the input image (col. 4, ln. 17-37); to the input image whose color difference has been amplified (col. 4, ln. 17-37); and to the input image (col. 4, ln. 17-37), and said determination device (Fig. 1, LUT module 17) changes parameters, color difference amplification (col. 4, ln. 17-37).

Marsh et al. fail to specifically address by interpolation; that has undergone the interpolation process; in the interpolation process.

Yeomans discloses by interpolation (col. 3, ln. 40 through col. 4, ln. 2 and col. 4, ln. 34-45); that has undergone the interpolation process (col. 3, ln. 40 through col. 4, ln. 2 and col. 4, ln. 34-45); in the interpolation process (col. 3, ln. 40 through col. 4, ln. 2 and col. 4, ln. 34-45).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include interpolation in order to more accurately modify an image.

Marsh et al. in view of Yeomans fail to specifically address applying gamma conversion; applying hue correction; that has undergone the gamma conversion; and hue correction.

Hiroaki discloses applying gamma conversion (col. 14, ln. 32-36); applying hue correction (col. 14, ln. 32-36); that has undergone the gamma conversion (col. 14, ln. 32-36); and hue correction (col. 14, ln. 32-36).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include gamma conversion and hue correction to provide color tone correction for an image.

10. Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marsh et al. in view of Yeomans and further in view of Niikawa (US 2002/0135688 A1).

Regarding claim 8: Marsh et al. in view of Yeomans satisfy all the elements of claim 2. Marsh et al. further disclose input by said input device (Fig. 1, apparatus 11).

Marsh et al. in view of Yeomans fail to specifically address wherein the first and second images are thumbnail images obtained by reducing the images.

Niikawa discloses wherein the first and second images are thumbnail images obtained by reducing the images (par. 191).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include wherein the first and second images are thumbnail images obtained by reducing the images in order to easily select desired images.

Regarding claim 12: Marsh et al. satisfy all the elements of claim 9. Marsh et al. further disclose than the sensed input image to be converted by said conversion device (Fig. 5 and col. 7, ln. 11-27).

Marsh et al. fail to specifically address wherein the two images are thumbnail images having a smaller size.

Niikawa discloses wherein the two images are thumbnail images having a smaller size (par. 191).

Allowable Subject Matter

11. Claims 25, 28 and 31-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlotte M. Baker whose telephone number is 571-272-7459. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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